UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,382	11/01/2005	Peter Anderegg	27004U	3149

20529 7590 06/18/2007

NATH & ASSOCIATES
112 South West Street
Alexandria, VA 22314

EXAMINER	
STEELE, JENNIFER A	
ART UNIT	**PAPER NUMBER**
1771	

MAIL DATE	DELIVERY MODE
06/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/551,382	ANDEREGG, PETER	
	Examiner	Art Unit	
	Jennifer Steele	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "continuously changing weight quota" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

2. Claim 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "predetermined" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

3. Claim 1-3, 5, 6, 8 and 9 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the

explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1recites the broad recitation porous fibrous skeleton made of coarse fiber, and the claim also recites "*in particular* comprising staple fibers or spunbonded fibers which is the narrower statement of the range/limitation.

Claim 2 recites the broad recitation coarse fibers have a titre of more than 1 dtex, and the claim also recites "*in particular* in the range of 1 to 35 dtex which is the narrower statement of the range/limitation.

Claim 3 recites the broad recitation spunbonded fibers, and the claim also recites "*in particular* are made of a polyester, a polypropylene or a polyamide and preferably are made of PET which is the narrower statement of the range/limitation".

Claim 5 recites the broad recitation "non-melted on microfibers have a titre in the range of 0.01 to 1.0 dtex", and the claim also recites "*preferably* a titre of 0.1 to 0.6 dtex and typically a titre of around 0.2 dtex." which is the narrower statement of the range/limitation.

Claim 6 recites the broad recitation "meltblown fibrous material", and the claim also recites "*in particular* is made of a polyester, a co-polyester, a polyamide, a co-polyamide, a polypropylene, a co-polypropylene or similar, and *preferably* is made of PET or co-PET," which is the narrower statement of the range/limitation.

Claim 8 recites the broad recitation "air flow resistance... have a value of between 200 to 60,000", and the claim also recites "*in particular* between 80-35,000 and *preferably* between 1,000 to 20,000 and *mainly* about 1,400." which is the narrower statement of the range/limitation.

Claim 9 recites the broad recitation "a bending stiffness... has a value of between 0.005 and 10", and the claim also recites "*in particular* has a value of between 0.025 to 6.0." which is the narrower statement of the range/limitation.

4. Claim 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The reference to porous fibrous skeleton (2) and surface region (4,10) and melt-on microfibrous material (7) is indefinite because it is unclear which figure the claim is referring to and does not specifically describe the claim limitation without reference to the figures submitted with the application. The claimed structure of the skeleton and surface region is not clearly set forth in the claims.

5. Claim 4 recites the limitation "non-melted microfibers" in the non-woven. There is insufficient antecedent basis for this limitation in the claim because claim 1 recites the

limitation of "melted-on microfibrous material". This renders the claims and the invention indefinite as to whether the microfibers are melted on not melted.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1,2,6,7 and 11 rejected under 35 U.S.C. 102(b) as being anticipated by Swan et al. (US 5,773,375). Swan anticipates an acoustically effective nonwoven comprising coarse polyester staple fibers (col. 4, lines 31-40) and polypropylene meltblown microfibers (col. 3, lines 12-26). The acoustic nonwoven insulation fabric anticipates the air flow resistance of claim 1 and teaches an air flow pressure drop (col. 3, lines 20-27). The nonwoven acoustical insulation web can be thermally consolidated to form reduced thickness areas (col. 3, lines 40-45).

7. Claim 2 rejected under 35 U.S.C. 102(b) as being anticipated by Swan et al. (US 5,773,375). Swan anticipates coarse fibers with a 1-35 dtex and references a 1-35 denier fiber (col. 4, lines 31-40).

8. Claim 6 rejected under 35 U.S.C. 102(b) as being anticipated by Swan et al. (US 5,773,375). Swan anticipates meltblown microfibers of polypropylene, copolymers and blends of polypropylene and blend of compatible polyolefins (col. 4, lines 23-30).

9. Claim 7 rejected under 35 U.S.C. 102(b) as being anticipated by Swan et al. (US 5,773,375). Swan anticipates coarse fibers of higher melting point and teaches polyester fibers that have a higher melting point than polypropylene microfibers.

10. Claim 11 rejected under 35 U.S.C. 102(b) as being anticipated by Swan et al. (US 5,773,375). Swan anticipates an air impermeable layer and teaches a film layer (14) that is a water barrier layer (col. 5, lines 63-67).

Claim Rejections - 35 USC § 102/103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claim 5 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Swan et al. (US 5,773,375). Swan teaches melt-blown microfibers generally about 1 to 25 microns in diameter but does not teach the titre of the range of 0.01 to 1.0 dtex. Examiner considers the reference to microfibers as similar in size and therefore it would have been obvious to select a microfiber of 0.01 to 1.0dtex.

12. Claim 8 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Swan et al. (US 5,773,375). Swan teaches a

air flow pressure drop of at least about 1 mm water at a flow rate of about 32 liters/min. Swan does not teach the air flow resistance in the units of N/m^3 and a value of 200-60,000 N/m^3, between 800-35,000 N/m^3 and preferably between 1,000 to 20,000 N/m^3. When the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention the examiner has basis for shifting the burden of proof to applicant as in In re Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP § § 2112- 2112.02.

13. Claim 9 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Swan et al. (US 5,773,375). Swan teaches an acoustic panel for use in motor vehicles that can be pressure molded and heated to form to the contours of a motor vehicle door. Swan does not teach a stiffness property, however the invention of Swan as described inherently has a stiffness. When the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention the examiner has basis for shifting the burden of proof to applicant as in In re Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP § § 2112- 2112.02.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Swan et al. (US 5,773,375) in view of Ista et al. (US 7,195,814). Swan differs from the current application and does not teach spunbonded fibers. Ista teaches microfiber entangled products and methods of producing microfiber products that incorporate microfiber materials and other materials (ABST). Ista teaches the materials that are produced to meet the need for new and creative product constructions (col. 1, lines 21-26). Ista teaches products for a variety of uses, including acoustic insulation (col. 21, lines 52-59). Ista teaches a microfiber material and second material that is not a microfiber material (col 18, l ines14-44). Ista teaches a second material can include materials that are in the form of screens; meshes; open-cell foams; spunbonds; roving yarns or filaments; knit, woven, or non-woven (including dry laid, wet laid, spunbonded, and melt-blown) constructions; or any other feature of size-scale that allows entanglement with a

microfiber (col. 18, lines 14-44). Ista teaches that different materials of a microfiber-entangled product can be selected to include one or more microfiber-forming layer and one or more layers that is not a microfiber-forming layer to give a combination of properties from the different layers. The properties include hydrophobicity, hdorphilicity or a mechanical property such as rigidity, flexibility (col. 2, lines 61-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine a spunbond material with microfibers motivated to produce an acoustic insulation panel with specific properties of air resistance and rigidity.

15. Claim 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Swan et al. (US 5,773,375) in view of Ista et al. (US 7,195,814). Swan differs from the current application and teaches a scrim outer layer (52) and a film (14) but does not teach another nonwoven layer. Ista teaches a second material can include materials that are in the form of screens; meshes; open-cell foams; spunbonds; roving yarns or filaments; knit, woven, or non-woven (including dry laid, wet laid, spunbonded, and melt-blown) constructions; or any other feature of size-scale that allows entanglement with a microfiber (col. 18, lines 14-44). Ista teaches that different materials of a microfiber-entangled product can be selected to include one or more microfiber-forming layer and one or more layers that is not a microfiber-forming layer to give a combination of properties from the different layers. The properties include hydrophobicity, hdorphilicity or a mechanical property such as rigidity, flexibility (col. 2, lines 61-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a nonwoven layer as taught by Ista instead of the scrim layer of Swan

motivated to produce an acoustic insulation panel with combination of properties as taught by Ista.

16. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Swan et al. (US 5,773,375) in view of Sandoe et al. (US 6,756,332). Swan differs from the current application and does not teach a decorative layer. Sandoe teaches a vehicle headliner and laminate that is comprised of layers of materials including a core layer of a nonwoven fibers of fine denier that improve sound absorption and stiffening layers of coarser fibers than in the core layer. Sandoe teaches one of the reinforming material layers has a decorative cover that is exposed to the interior, or passenger side of the motor vehicle (col. 1, lines 65-68).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a decorative layer to the acoustical panel of Swan motivated to produce a motor vehicle insulation panel that is pleasing to the passenger.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Steele whose telephone number is (571) 272-7115. The examiner can normally be reached on Office Hours Mon-Fri 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ELIZABETH M. COLE
PRIMARY EXAMINER

6/9/2007